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\* EUROPEAN PATENT ABSTRACTS \*  
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=> s fas(w)ligand

FILE EP/PO

32 FAS

3019 LIGAND

L1 5 FAS(W) LIGAND

FILE JPO

96 FAS

1925 LIGAND

L2 5 FAS(W) LIGAND

FILE USP/AT

520 FAS

18054 LIGAND

8 FAS(W) LIGAND

FILE USOCR

283 FAS

533 LIGAND

L4 0 FAS(W) LIGAND

TOTAL FOR ALL FILES

L5 18 FAS(W) LIGAND

=> d 15 l-18 bib ab

WO009601053A1

L5: 1 of 18

ABSTRACT:

This invention relates to methods of preventing or inhibiting graft versus host disease or transplantation rejection in a mammal in need of a transplant. In particular it relates to the use of cytotoxic protein deficient mammals or \*\*Fas\*\* \*\*ligand\*\* deficient mammals or mammals deficient in at least one cytotoxic protein and a Fas protein as tissue donors. The method can be used to treat a wide variety of afflictions in mammals including autoimmune disease, malignancies, immunodeficiencies

and genetic disorders. Further, the provided method facilitates donor specific tolerance for permanent acceptance of donor tissues by the recipient.

WO00953267A1

L5: 2 of 18

ABSTRACT:

Soluble mouse and human \*\*Fas\*\* \*\*ligand\*\* polypeptides and methods for inhibiting T-lymphocyte-mediated immune responses, including those directed against autologous and/or heterologous tissues, e.g., by a recipient mammal of a transplanted tissue, by providing the recipient mammal with \*\*Fas\*\* \*\*ligand\*\* . The \*\*Fas\*\* \*\*ligand\*\* may be provided to the recipient mammal by a variety of means, including by direct administration of the \*\*Fas\*\* \*\*ligand\*\* or by providing the gene encoding the \*\*Fas\*\* \*\*ligand\*\* to a subject such that \*\*Fas\*\* \*\*ligand\*\* is synthesized by the subject.

EP000675200A1

L5: 3 of 18

ABSTRACT:

This invention provides a novel polypeptide useful in the field of medicines, a novel DNA which encodes the novel polypeptide, a recombinant DNA molecule which contains the novel DNA, a transformant transformed with the novel DNA or the recombinant DNA molecule, a process for the purification of the novel polypeptide, a process for the production of the novel polypeptide, an antibody which recognizes the novel polypeptide, an oligonucleotide complementary to the novel DNA and a novel screening method.

Particularly this invention provides a novel polypeptide which is \*\*Fas\*\* \*\*ligand\*\* or a fragment thereof. This novel polypeptide can be used as an effective ingredient of a medicament for regulating the apoptosis in a living body. This novel polypeptide is obtained by identifying a DNA fragment which encodes the novel polypeptide, transforming a desired host with a recombinant DNA molecule which contains the DNA fragment and purifying the novel polypeptide produced by the resulting transformant. This novel polypeptide has a cytoplasmic domain, a transmembrane domain and extracellular domain and takes part in apoptosis. <IMAGE>

WO009518819A1

L5: 4 of 18

ABSTRACT:

Novel human and murine proteins designated \*\*Fas\*\* \*\*ligand\*\* (Fas-L) bind to the cell surface protein known as Fas antigen. DNA sequences, expression vectors and transformed host cells useful in producing Fas-L polypeptides are provided, along with antibodies immunoreactive with Fas-L.

WO009510540A1

L5: 5 of 18

ABSTRACT:

<CHG DATE=19950607 STATUS=O>The present invention provides a panel of monoclonal antibodies and binding proteins which specifically bind to human Fas antigen. Some of the antibodies and binding proteins are capable of stimulating T cell proliferation, inhibiting binding of anti-Fas CH-11 monoclonal antibody to cells expressing Fas antigen, blocking anti-Fas CH-11 monoclonal antibody-mediated lysis of cells, and blocking \*\*Fas\*\* \*\*ligand\*\* mediated lysis of cells. The invention also provides for therapeutic compositions comprising the monoclonal antibodies.

JP409188631A

L5: 6 of 18

ABSTRACT:

PROBLEM TO BE SOLVED: To obtain a \*\*Fas\*\* \*\*ligand\*\* solubilization inhibitor which contains specific compounds a part of which is novel, have an inhibitory activity against matrix metalloproteinase and are useful in prevention and treatment for hepatitis, GVHD, AIDS or some kinds of autoimmune diseases.

SOLUTION: A matrix metalloproteinase inhibitory compound, particularly of formula I (Q is formula II (R<SP>6<SP> is H, OH, an alkoxy), formula III (R<SP>7<SP> is H, OH, methoxy), A is N-hydroxyaminocarbonyl, carbonyl, R<SP>1<SP> is H, amino, an alkoxy, an aryl, R<SP>2<SP> is H, an alkyl, an alkenyl) or its pharmaceutically permissible salt is used. Among the compounds of formula I, the compound of formula IV (R<SP>11<SP> is a 1-6C alkyl, THIN is 5,6,7,8-tetrahydro-1-naphthyl, 5,6,7,8-tetrahydro-2-naphthyl) and its salt are unknown. This drug is effective for treatment and prevention for diseases particularly caused by excessive activation of T-cells.

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JP409124510A

L5: 7 of 18

ABSTRACT:

PROBLEM TO BE SOLVED: To obtain a liberation inhibitor and a method for suppressing liberation so as to suppress the liberation of the \*\*Fas\*\* \*\*ligand\*\* as a soluble \*\*Fas\*\* \*\*ligand\*\* from the cell surface of a \*\*Fas\*\* \*\*ligand\*\* manifesting cell and to efficiently detect a \*\*Fas\*\* \*\*ligand\*\* on the surface of a cell by using an antibody.

SOLUTION: The characteristic of this liberation inhibitor of a \*\*Fas\*\* \*\*ligand\*\* is that the inhibitor comprises an inhibitor for suppressing the activity of a protease capable of converting an \*\*Fas\*\* \*\*ligand\*\* on the cell surface into a soluble ligand as an active ingredient. A method for suppressing liberation of the \*\*Fas\*\* \*\*ligand\*\* is provided. This method detects the \*\*Fas\*\* \*\*ligand\*\* on the cell surface of the a \*\*Fas\*\* \*\*ligand\*\* manifesting cell by using an antibody against the \*\*Fas\*\* \*\*ligand\*\* . The cell is treated with an inhibitor to suppress the activity of the protease capable of converting an \*\*Fas\*\* \*\*ligand\*\* on the cell surface into a soluble ligand as an active ingredient. The \*\*Fas\*\* \*\*ligand\*\* is detected by using an antigen against the \*\*Fas\*\* \*\*ligand\*\* .

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JP409124509A

L5: 8 of 18

ABSTRACT:

PROBLEM TO BE SOLVED: To obtain a therapeutic agent effective for treating hepatitis developing by death of hepatocyte by apoptosis, comprising an antibody against human \*\*Fas\*\* \*\*ligand\*\* or its active fragment as an active ingredient.

SOLUTION: This therapeutic agent for hepatitis comprises preferably 0.5-70wt % of an antibody against human \*\*Fas\*\* \*\*ligand\*\* or its active fragment as an active ingredient. The dose of the objective therapeutic agent is preferably 0.01-600mg based on the active ingredient per human adult daily. A monoclonal antibody to be specifically reacted with \*\*Fas\*\* \*\*ligand\*\* is preferable as the antibody against a human \*\*Fas\*\* \*\*ligand\*\* . A monoclonal antibody produced from hybridoma NOKI (FERM BP-5044), for example, may be cited as the monoclonal antibody, when the monoclonal antibody is made into a human type or a chimera type monoclonal antibody, preferably the monoclonal antibody suppresses formation of an antibody against an adventitious protein and effectively acts.

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JP408089256A

L5: 9 of 18

ABSTRACT:

**PURPOSE:** To provide a novel gene which codes human \*\*Fas\*\* \*\*ligand\*\* having a specific amino acid sequence, can express human \*\*Fas\*\* \*\*ligand\*\* where the antibody to the expressed protein can be used in pathologic diagnosis for autoimmune diseases, hepatitis C, diabetes and the like.

**CONSTITUTION:** This novel gene codes human \*\*Fas\*\* \*\*ligand\*\* which has an amino acid sequence including the amino acid sequence given in the formula, links to the Fas antigen occurring on the surface of hepatic cells of patients with chronic hepatitis C and is expressed on the lymphocyte surface. This gene is incorporated into an expression vector and expressed in the host to produce human \*\*Fas\*\* \*\*ligand\*\* efficiently. \*\*Fas\*\* \*\*ligand\*\* can be determined using the antibody prepared using the expression product as an antigen for pathologic diagnosis of autoimmune diseases, hepatitis C, diabetes and the like. The gene of human \*\*Fas\*\* \*\*ligand\*\* is obtained by extracting RNA from liver-infiltrating mononuclear cells, preparing cDNA library using it as a template and screening the library with probes.

**COPYRIGHT:** (C)1996,JPO

US PAT NO: 5,747,245 [IMAGE AVAILABLE] L5: 10 of 18

**ABSTRACT:**

**PURPOSE:** To obtain a new DNA, capable of coding a human Fas antigenic variant, etc., having low antigenicity and inhibiting the binding of an \*\*Fas\*\* \*\*ligand\*\* to the Fas antigen and regulating the nephritis or multiple organ failure etc.

**CONSTITUTION:** This new DNA is capable of coding a human Fas antigenic variant or a peptide having substantially the same functions as those of the variant and has a base sequence capable of coding an amino acid sequence expressed by the formula. Furthermore, a new polypeptide having at least a part of the amino acid sequence expressed by the formula is obtained by culturing a transformant transformed with a recombinant DNA molecule containing the new DNA and providing the peptide from the culture mixture thereof.

**COPYRIGHT:** (C)1995,JPO

US PAT NO: 5,750,653 [IMAGE AVAILABLE] L5: 11 of 18

**DATE ISSUED:** May 12, 1998  
**TITLE:** Protein, FAF1, which potentiates Fas-mediated apoptosis and uses thereof

**INVENTOR:** Keiing Chu, Burlingame, CA

**ASSIGNEE:** Lewis T. Williams, Tiburon, CA

**SIGNEE:** The Regents of the University of California, Oakland, CA (U.S. corp.)

**APPL. NO:** 08/477,476

**DATE FILED:** Jun. 7, 1995

**ART-UNIT:** 187

**PRIMA-EXAM:** Stephen Walsh

**ASST-EXAM:** Daryl A. Bebban

**LEGAL-REP:** Townsend and Townsend and Crew LLP

US PAT NO: 5,750,653 [IMAGE AVAILABLE] L5: 11 of 18

**ABSTRACT:**  
The present invention identifies a novel, Fas-associated factor 1 termed FAF1 which potentiates Fas-induced cell killing. The invention provides FAF1 nucleic acid and polypeptide compositions as well as methods of using these compositions in the therapeutic treatment of diseases resulting from dysregulation in apoptosis. Also provided are cells carrying and expressing the nucleic acid compositions and methods of using these cells to screen for agonists and antagonists of Fas-mediated apoptosis. Methods of isolating FAF1-interacting proteins are disclosed.

US PAT NO: 5,747,245 [IMAGE AVAILABLE] L5: 12 of 18

**DATE ISSUED:** May 5, 1998  
**TITLE:** Nucleic acids encoding Fas associated proteins and screening assays using same

**INVENTOR:** John C. Reed, Carlsbad, CA

**ASSIGNEE:** Takashi Sato, San Diego, CA

**SIGNEE:** La Jolla Cancer Research Foundation, La Jolla, CA (U.S. corp.)

**APPL. NO:** 08/259,514

**DATE FILED:** Jun. 14, 1994

**ART-UNIT:** 187

**PRIMA-EXAM:** Stephanie W. Zlotner

**ASST-EXAM:** Dianne Rees

US PAT NO: 5,747,245 [IMAGE AVAILABLE] L5: 12 of 18

**ABSTRACT:**

The present invention provides mammalian protein tyrosine phosphatases, human PTP-BAS type 4, human PTP-BAS type 5a and mouse PTP-BAS type 5b, each of which is a Fas-associated protein (FAP), nucleic acid molecules encoding a PTP-BAS type 4 or a PTP-BAS type 5, and antibodies specific for a PTP-BAS type 4 or for a PTP-BAS type 5. The invention also provides methods for identifying FAPs, which can associate with Fas and can modulate apoptosis. The invention also provides screening assays for identifying an agent that can effectively alter the association of a FAP with Fas and, therefore, can increase or decrease the level of apoptosis in a cell. The invention further provides methods of modulating apoptosis in a cell by introducing into the cell a nucleic acid molecule encoding a PTP-BAS or an antisense nucleotide sequence, which is complementary to a portion of a nucleic acid molecule encoding a PTP-BAS. The invention also provides a method of using a reagent that can specifically bind to a FAP to diagnose a pathology that is characterized by an increased or decreased level of apoptosis in a cell. The invention also provides methods of modulating apoptosis in a cell by contacting the cell with an agent that effectively alters the association of a FAP and Fas in a cell or alters the activity of a FAP in a cell.

US PAT NO: 5,712,262 [IMAGE AVAILABLE] L5: 13 of 18

**DATE ISSUED:** Jan. 27, 1998

**TITLE:** Use of sphingosine-1-phosphate to suppress programmed cell death

**INVENTOR:** Sarah Spiegel, 6343 Linway Terr., McLean, VA 22101

**APPL. NO:** 08/754,323

**DATE FILED:** Nov. 21, 1996

**ART-UNIT:** 125

**PRIMA-EXAM:** Phyllis G. Spivack

**LEGAL-REP:** Glenna Hendricks, Carol Carr

US PAT NO: 5,712,262 [IMAGE AVAILABLE] L5: 13 of 18

**ABSTRACT:**

Administration of sphingosine-1-phosphate to retard apoptosis in degenerative diseases as neurodegenerative diseases, ischemic stroke and aging is disclosed wherein slowing of the process of programmed cell death is useful as a means to slow the degenerative process in patients suffering from these diseases.

US PAT NO: 5,712,115 [IMAGE AVAILABLE] L5: 14 of 18

**DATE ISSUED:** Jan. 27, 1998

**TITLE:** Human cell death-associated protein

**INVENTOR:** Philip R. Hawkins, Mountain View, CA

**ASSIGNEE:** Scott Michael Braxton, San Mateo, CA

**SIGNEE:** Lynn E. Murry, Portola Valley, CA

**APPL. NO:** 08/618,164

**DATE FILED:** Mar. 19, 1996

**ART-UNIT:** 186

**PRIMA-EXAM:** Christina Y. Chan

**ASST-EXAM:** Emma Cech

**LEGAL-REP:** Lucy J. Billings, Barbara J. Lunter

US PAT NO: 5,712,115 [IMAGE AVAILABLE] L5: 14 of 18

**ABSTRACT:**

The present invention provides a polynucleotide which identifies and encodes a human cell death-associated protein (cdap) which was isolated from a rheumatoid synovium library. The invention provides for

genetically engineered expression vectors and host cells comprising a nucleic acid sequence encoding CDAP. The invention also provides for the therapeutic use of purified CDAP, cdap or its antisense molecules, or CDAP inhibitors in pharmaceutical compositions and for treatment of conditions or diseases associated with expression of CDAP. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, or fragments thereof, or antibodies which specifically bind to the polypeptide.

US PAT NO: 5,663,070 [IMAGE AVAILABLE] L5: 15 of 18

**DATE ISSUED:** Sep. 2, 1997

**TITLE:** Recombinant production of a soluble splice variant of the Fas (Apo-1) antigen, Fas TM

**INVENTOR:** Philip J. Barr, Berkeley, CA

**ASSIGNEE:** Michael C. Kiefer, Clayton, CA

**SIGNEE:** LXR Biotechnology Inc., Richmond, CA (U.S. corp.)

**APPL. NO:** 08/152,443

**DATE FILED:** Nov. 15, 1993

**ART-UNIT:** 182

**PRIMA-EXAM:** David L. Fitzgerald

**LEGAL-REP:** Morrison & Foerster

US PAT NO: 5,663,070 [IMAGE AVAILABLE] L5: 15 of 18

**ABSTRACT:**

The invention provides soluble forms of the Fas (Apo-1) protein comprising both the intracellular and extracellular domains of the full-length polypeptide. Exemplified is a naturally-occurring splice variant of the Fas gene, Fas DELTA TM, which lacks the transmembrane domain of the native antigen. DNA encoding the protein, cells expressing the recombinant DNA, and methods of using the protein and DNA are also provided.

US PAT NO: 5,652,210 [IMAGE AVAILABLE] L5: 16 of 18

**DATE ISSUED:** Jul. 29, 1997

**TITLE:** Soluble splice variant of the Fas (Apo-1) antigen, Fas DELTA TM

**INVENTOR:** Philip J. Barr, Berkeley, CA

**ASSIGNEE:** Michael C. Kiefer, Clayton, CA

**SIGNEE:** LXR Biotechnology, Inc., Richmond, CA (U.S. corp.)

**APPL. NO:** 08/444,231

**DATE FILED:** May 18, 1995

**ART-UNIT:** 182

**PRIMA-EXAM:** David L. Fitzgerald

**LEGAL-REP:** Morrison & Foerster

US PAT NO: 5,652,210 [IMAGE AVAILABLE] L5: 16 of 18

**ABSTRACT:**

The invention provides soluble forms of the Fas (Apo-1) protein comprising both the intracellular and extracellular domains of the full-length polypeptide. Exemplified is a naturally-occurring splice variant of the Fas gene, Fas DELTA TM, which lacks the transmembrane domain of the native antigen. DNA encoding the protein, cells expressing the recombinant DNA, and methods of using the protein and DNA are also provided.

US PAT NO: 5,632,994 [IMAGE AVAILABLE] L5: 17 of 18

**DATE ISSUED:** May 27, 1997

**TITLE:** Fas associated proteins

**INVENTOR:** John C. Reed, Carlsbad, CA

**ASSIGNEE:** Takashi Sato, San Diego, CA

**SIGNEE:** La Jolla Cancer Research Foundation, La Jolla, CA (U.S. corp.)

**APPL. NO:** 08/410,804

**DATE FILED:** Mar. 27, 1995

**ART-UNIT:** 187

**PRIMA-EXAM:** Stephanie W. Zlotner

**ASST-EXAM:** Dianne Rees

**LEGAL-REP:** Campbell and Flores

US PAT NO.: 5,632,994 [IMAGE AVAILABLE] L5: 17 of 18

ABSTRACT:

The present invention provides mammalian protein tyrosine phosphatases, human PTP-BAS type 4, human PTP-BAS type 5a and mouse PTP-BAS type 5b, each of which is a Fes-associated protein (FAP), nucleic acid molecules encoding a PTP-BAS type 4 or a PTP-BAS type 5 and antibodies specific for a PTP-BAS type 4 or for a PTP-BAS type 5. The invention also provides methods for identifying FAPs, which can associate with Fes and can modulate apoptosis. The invention also provides screening assays for identifying an agent that can effectively alter the association of a FAP with Fes and, therefore, can increase or decrease the level of apoptosis in a cell. The invention further provides methods of modulating apoptosis in a cell by introducing into the cell a nucleic acid molecule encoding a PTP-BAS or fragment of a PTP-BAS or an antisense nucleotide sequence, which is complementary to a portion of a nucleic acid molecule encoding a PTP-BAS. The invention also provides a method of using a reagent that can specifically bind to a FAP to diagnose a pathology that is characterized by an increased or decreased level of apoptosis in a cell. The invention also provides methods of modulating apoptosis in a cell by contacting the cell with an agent that effectively alters the association of a FAP and Fes in a cell or alters the activity of a FAP in a cell.

US PAT NO.: 5,620,889 [IMAGE AVAILABLE] L5: 18 of 18

DATE ISSUED: Apr. 15, 1997

TITLE: Human anti-Fes IgG1 monoclonal antibodies

INVENTOR: David H. Lynch, Bainbridge Island, WA

Mark R. Alderson, Bainbridge Island, WA

ASSIGNEE: Immunex Corporation, Seattle, WA (U.S. corp.)

APPL. NO.: 08/022,805

DATE FILED: Oct. 13, 1994

ART-UNIT: 186

PRIM-EXMR: Susan A. Loring

US PAT NO.: 5,620,889 [IMAGE AVAILABLE] L5: 18 of 18

ABSTRACT:

The present invention provides a panel of monoclonal antibodies and binding proteins which specifically bind to human Fes antigen. Some of the antibodies and binding proteins are capable of stimulating T cell proliferation, inhibiting binding of anti-Fes CH-11 monoclonal antibody to cells expressing Fes antigen, blocking anti-Fes CH-11 monoclonal antibody-mediated lysis of cells, and blocking \*\*Fes\*\*  
\*\*ligand\*\* mediated lysis of cells. The invention also provides for therapeutic compositions comprising the monoclonal antibodies.

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